R E M A R K S

Careful review and examination of the subject application are noted and appreciated.

OBJECTION TO THE SPECIFICATION

The objection to the specification is respectfully traversed. The Examiner has not made any particular objection to the amended claims. On its face, it appears that the Examiner has merely copied the entire claim, then made the conclusory statement that the claims introduce new matter. However, no new matter has been introduced.

In particular, support for claims 21-23 can be found in the drawings as originally filed. For example, see FIGS. 1 and 2, and the specification, page 3, line 17, through page 6, line 2. An example of the input re-order channel is shown as element 110 in FIG. 1. An example of the first programmable inter connect matrix is shown as element 102a in FIG. 1. An example of the distributed input group of signals in a first order is shown as the inputs INA1, INB1 and INN1. An example of the distributed input group of signals in a second order is shown as the re-ordered signal path shown on the right side of the input re-order channel. An example of the second programmable interconnect matrix is shown as item 102n in FIG. 1. No new matter has been introduced.

Support for claims 24-29 can be found in the drawings as originally filed. For example, see FIGS. 3 and 4, and the specification, page 6, lines 3, through page 12). An example of the first distributed multiplexer is shown in FIG. 3 as element 102a'. An example of the first portion is shown as element 106a_1', 106a_2', 106a_3' and 106a_n'. The first portion is coupled to the input signals INA1, INA2, INA3 and INAn. An example of the second portion is shown as 106n_1', 106n_2', 106n_3' and 106n_n'. The second portion is connected to the inputs IND1, IND2, IND3 and INDn. The reference number 106a' shows an example of the physical separation of the first portion and the second portion on a die. No new matter was added.

CLAIM REJECTION UNDER 35 U.S.C. §112, FIRST PARAGRAPH

The rejection of claims 21, 24, 26 and 27 under 35 U.S.C. §112, first paragraph, is respectfully traversed and should be withdrawn. Similar to the objection to the specification, the Examiner has merely copied the entire claim, then made the conclusory statement that the claim is not supported. Applicants' representative respectfully traverses the rejection.

Support for new claims 21-23 can be found in the drawings as originally filed. For example, see FIGS. 1 and 2, and the specification, page 3, line 17, through page 6, line 2. Support for new claims 24-29 can be found in the drawings as originally

filed. For example, see FIGS. 3 and 4, and the specification, page 6, lines 3, through page 12). No new matter was added.

CLAIM REJECTIONS UNDER 35 U.S.C. §102

The rejection of claims 2, 5-11, 21-23 and 24-30 under 35 U.S.C. §102 as being anticipated by Nayak '140 has been obviated by appropriate amendment and should be withdrawn.

Nayak discloses a programmable interconnect matrix architecture for a complex programmable logic device (Title).

In contrast, claim 21 of the present invention provides an apparatus comprising a first programmable interconnect matrix and a second programmable interconnect matrix. The first programmable interconnect matrix includes one or more first multiplexers that may be configured to (i) receive a distributed input group of signals in a first order and (ii) present the distributed input group of signals in a second order. The second programmable interconnect matrix includes one or more second multiplexers that may be configured to receive the distributed input group of signals from the first programmable interconnect matrix in the second order. The first order of signals are different from the second order of said signals. The second order of signals are disposed in an input re-order channel. Nayak is silent regarding each of these limitations.

In particular, the cited passage in Nayak does not discuss a distributed input group of signals in a first order. Additionally, the cited passage of Nayak does not discuss a distributed input group of signals in a second order. The cited passage of Nayak does not discuss the second order of signals being different than the first order of signals. The cited passage of Nayak does not disclose an input re-order channel. Claim 21 is patentable over Nayak and the rejection should be withdrawn.

Claim 24 of the present invention provides an apparatus comprising a first distributed multiplexer and a second distributed multiplexer. The first distributed multiplexer may be configured to generate a first output in response to (i) a first portion coupled to a first group of input signals and (ii) a second portion coupled to a second group of input signals. The second distributed multiplexer may be configured to generate a second output in response to a (i) a first portion coupled to a third group of input signals and (ii) a second portion coupled to a fourth group of input signals. The first portion of the first distributed multiplexer may be physically separated from the second portion of the first distributed multiplexer on a layout area. The first portion of the second distributed multiplexer may be physically separated from the second portion of the second distributed multiplexer on the layout area. Nayak is silent regarding each of these limitations.

Nayak fails to disclose the presently claimed first distributed multiplexer configured to generate a first output in response to a first portion and a second portion **where the first portion of first distributed multiplexer is physically separated from the second portion of the first distributed multiplexer on a layout area**. In particular, Nayak is silent on physically separating portions of a multiplexer to form distributed multiplexers on a layout area. Therefore, the presently claimed invention is fully patentable over Nayak and the rejection should be withdrawn.

CLAIM REJECTIONS UNDER 35 U.S.C. §103

The rejection of claim 12 under 35 U.S.C. §103 as being unpatentable over Nayak in view of Agrawal '884 is respectfully traversed and should be withdrawn. Claim 12 depends from claim 21, which is now believed to be allowable.

FINALITY OF THE OFFICE ACTION

Applicant's representative respectfully requests reconsideration of the finality of the February 5, 2003 Office Action. 37 CFR §1.104(b) states:

> (b) *Completeness of examiner's action.* The examiner's **action will be complete as to all matters**, except that in appropriate circumstances, such as misjoinder of invention, fundamental defects in the application, and the like, the action of the examiner may be limited to

such matters of form need not be raised by the examiner until a claim is found allowable. (Emphasis added)

MPEP §706.07 further states:

> In making the final rejection, all outstanding ground of rejection of record should be carefully reviewed, and any such grounds relied on in the final rejection should be reiterated. They **must also be clearly developed to such an extent that applicant may readily judge the advisability of an appeal** unless a single previous Office action contains a complete statement supporting the rejection. (Emphasis added)

As discussed in response to the §102 rejections, the grounds of rejection have not been developed at all. Only a repeat of the claims along with a non-relevant citation has been presented. Clearly, a new Office Action should be considered.

Accordingly, the present application is in condition for allowance. Early and favorable action by the Examiner is respectfully solicited.

The Examiner is respectfully invited to call the Applicants' representative should it be deemed beneficial to further advance prosecution of the application.

If any additional fees are due, please charge our office Account No. 50-0541.

Respectfully submitted,

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